

FIG. 1

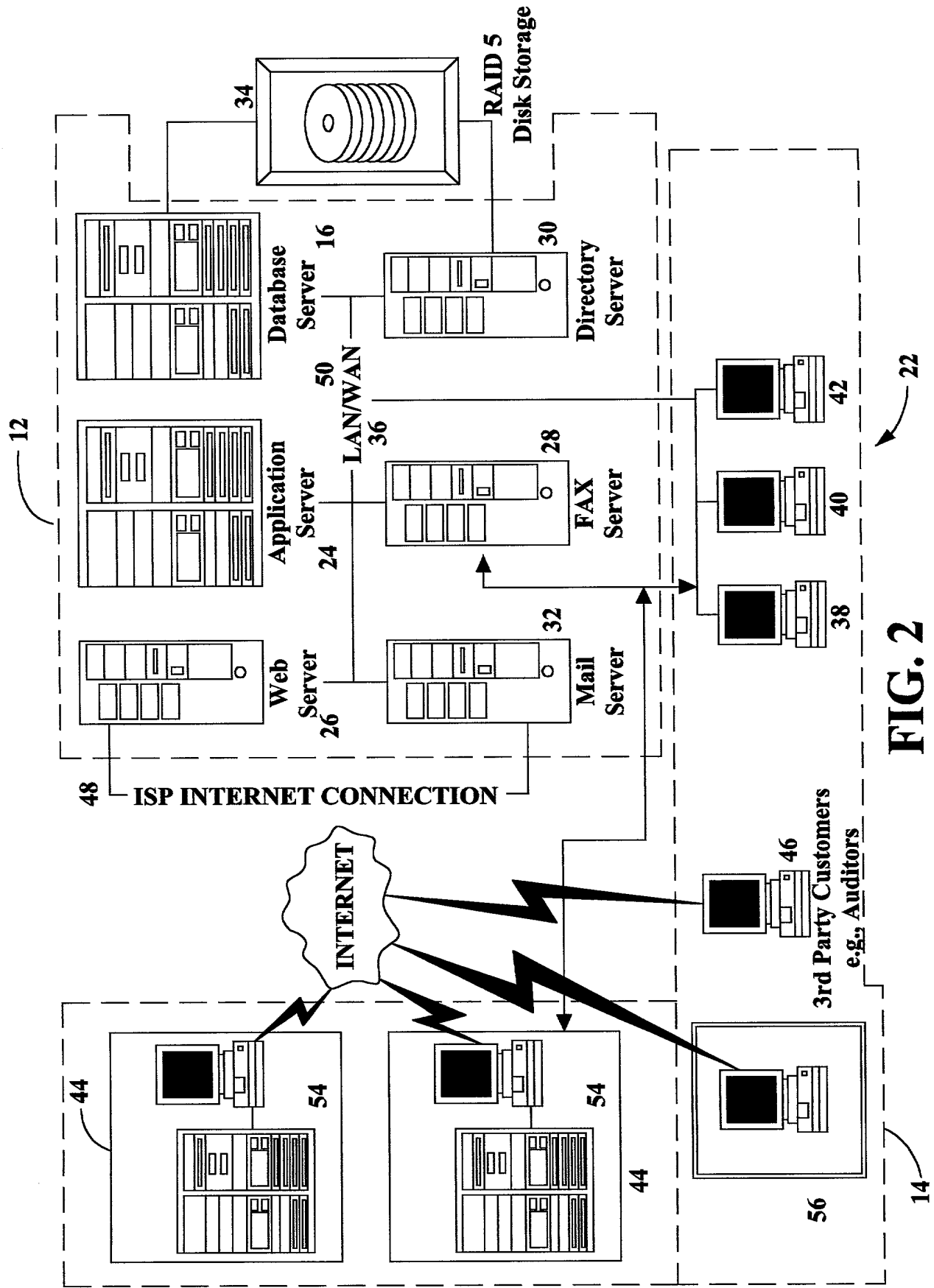


FIG. 2

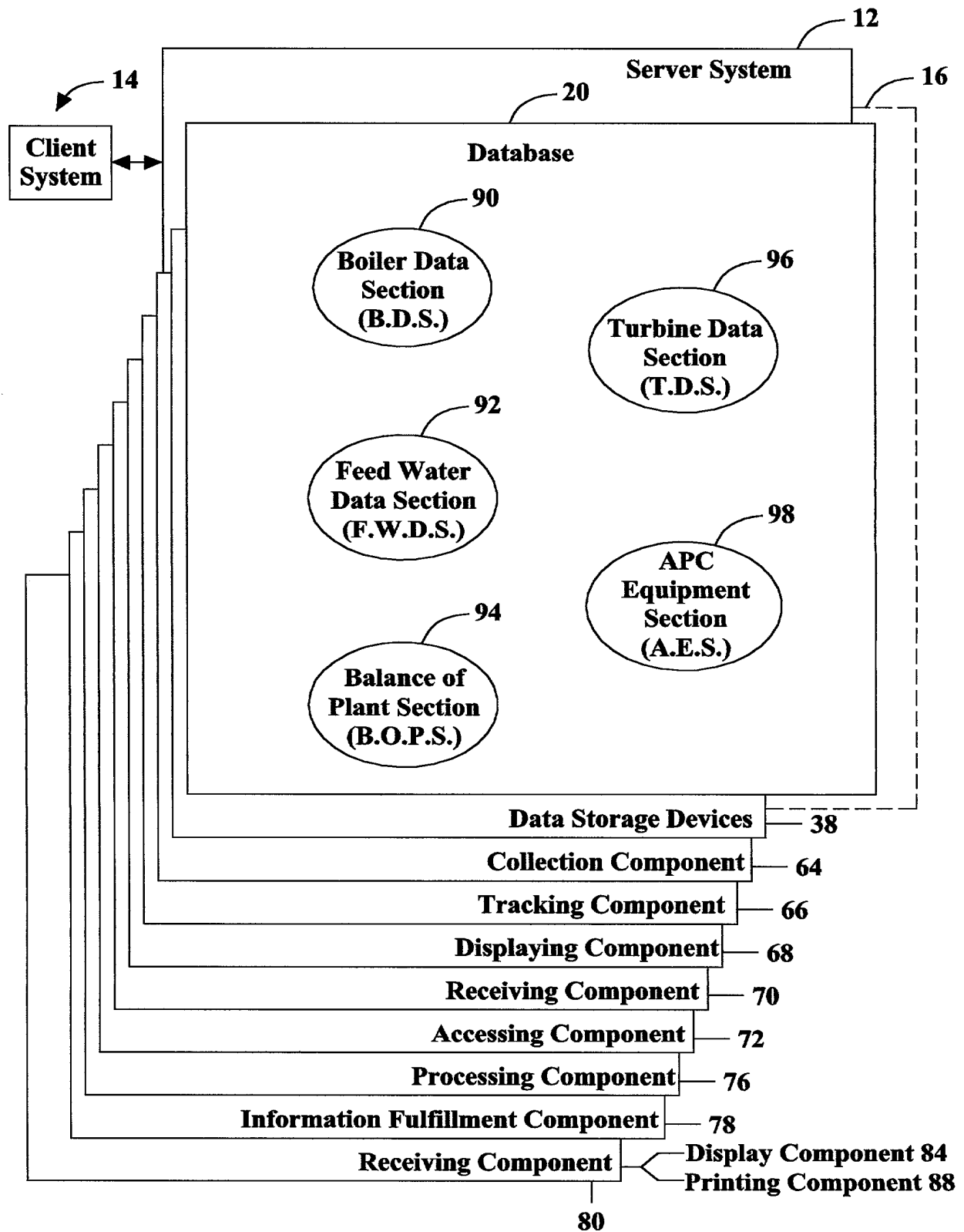


FIG. 3

File Name CoalPerf031601
Project Name Sample Project

Location USA

Operator To Be Determined

Facility Generation Information (per unit information):

Unit 1 373 Unit 2 0 Unit 3 0 Unit 4 0 Unit 5 0 Unit 6 0 Unit 7 0 Unit 8 0

Unit Gross Output (Input 0 If N/A)

TYPICAL

House Load

126 — Type of Unit

PULVERIZED COAL

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Existing Operational Hours From CO

0

0

0

0

0

0

0

148,920

Dispatch Information

Unit 1

Percentage of Available Hours Dispatched

January
February
March
April
May
June
July
August
September
October
November
December

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
2009 93.00%
2010 93.00%

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
2009 93.00%
2010 93.00%

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
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2010 93.00%

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
2009 93.00%
2010 93.00%

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
2009 93.00%
2010 93.00%

2001 100.00%
2002 93.00%
2003 93.00%
2004 93.00%
2005 93.00%
2006 93.00%
2007 93.00%
2008 93.00%
2009 93.00%
2010 93.00%

FIG. 4

120

128

124

122

130

Unit 2

Percentage of Available Hours Dispatched

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%

Dispatched Load

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 6

Unit 3

Percentage of Available Hours Dispatched

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
<u>Dispatched Load</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 7

Unit 4

Percentage of Available Hours Dispatched

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%

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Dispatched Load

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 8

Unit 5

Percentage of Available Hours Dispatched

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
<u>Dispatched Load</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 9

Unit 6

Percentage of Available Hours Dispatched

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
Dispatched Load	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 10

Unit 7

Percentage of Available Hours Dispatched

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Dispatched Load	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

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FIG. 11

Unit 8

Percentage of Available Hours Dispatched

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%

Dispatched Load

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIG. 12

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Fuels Information: 142

ACTUAL ANALYSIS ▼

Moisture & Ash Free

Carbon 74.66%
Hydrogen 5.26%
Nitrogen 1.08%
Chlorine 0.02%
Sulfur 1.31%
Oxygen 18.24%

Proximate (Sulfur Free)

Fixed Carbon 34.00%
Volatile Matter 30.70%
Moisture 29.80%
Ash 5.60%
Excess Air 20.00%
HHV 9.500

Ash Mineral Analysis

Silica - SiO₂ 31.00%
Alumina - Al₂O₃ 14.00%
Titania - Ti₂O₃ 1.10%
Ferric Oxide - Fe₂O₃ 6.60%
Lime - CaO 24.60%
Magnesia - MgO 6.00%
Potassium Oxide - K₂O 0.26%
Sodium Oxide - Na₂O 1.30%
Sulfur Trioxide - SO₃ 12.20%
Phosphorous Pentoxide - P₂O₅ 0.70%
Undetermined 2.30%

Operational Information:

Cycle ACTUAL CYCLE VALUES ▼ 144

	<u>Superheater Flow (#/hr)</u>	<u>Outlet Pressure (psig)</u>	<u>Outlet Temperature</u>
Unit 1	2,568,331	2,400	1,000
Unit 2			
Unit 3			
Unit 4			
Unit 5			
Unit 6			
Unit 7			
Unit 8			

140

FIG. 13

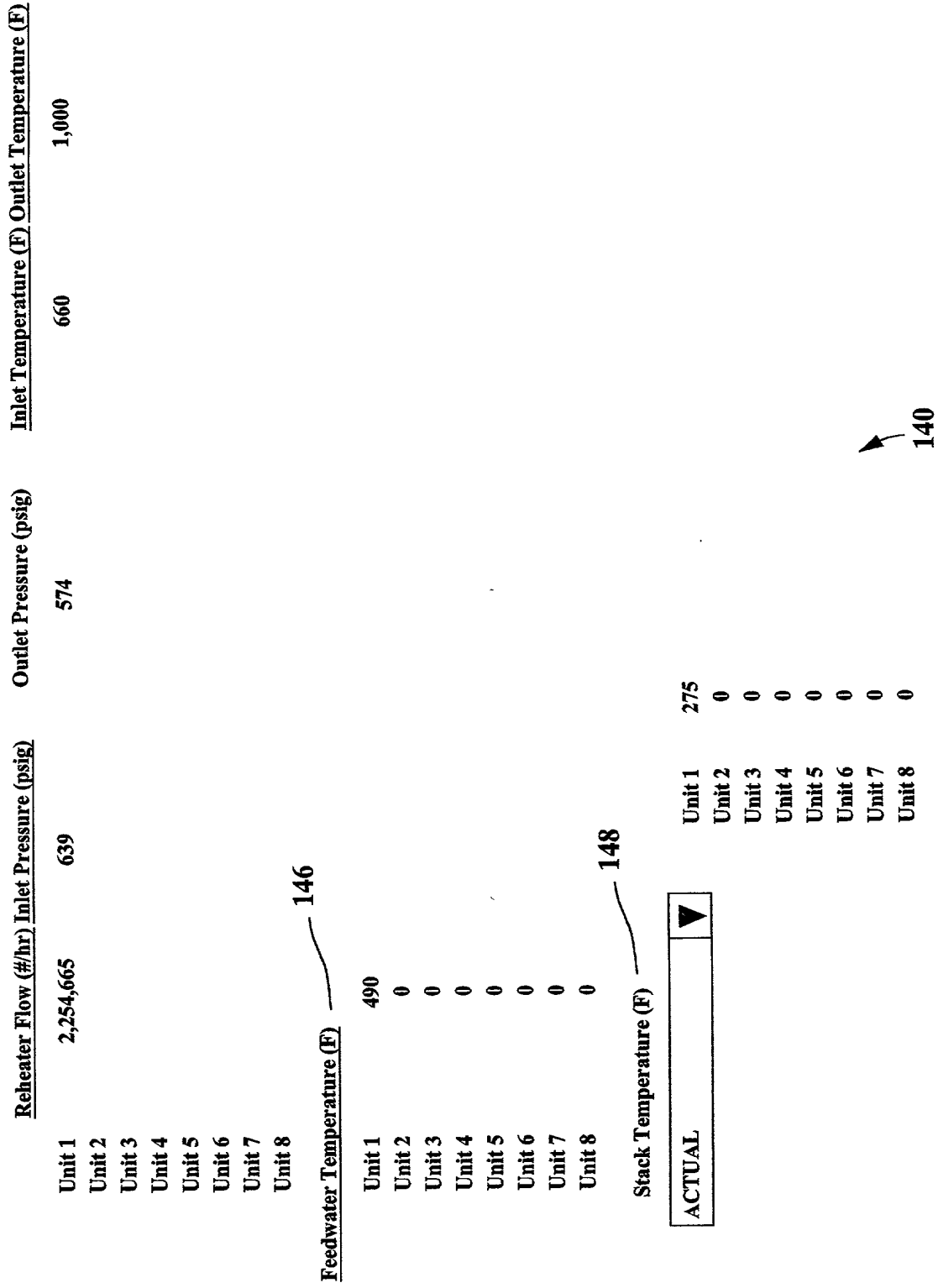


FIG. 14

Facility Equipment Information:

Flyash Control Equipment 162

Unit 1	BAGHOUSE	▼
Unit 2	ESP	▼
Unit 3	BAGHOUSE PLUS CORETEX BAGS	▼
Unit 4	ESP	▼
Unit 5	ESP	▼
Unit 6	ESP	▼
Unit 7	ESP	▼
Unit 8	ESP	▼

SO2 Control Equipment

164

Unit 1	SCRUBBER	▼	LIME	▼
Unit 2	NO SO2 EQUIPMENT	▼	LIME	▼
Unit 3	DRY INJECTION	▼	LIME	▼
Unit 4	NO SO2 EQUIPMENT	▼	LIME	▼
Unit 5	NO SO2 EQUIPMENT	▼	LIME	▼
Unit 6	NO SO2 EQUIPMENT	▼	LIME	▼
Unit 7	NO SO2 EQUIPMENT	▼	LIME	▼
Unit 8	NO SO2 EQUIPMENT	▼	LIME	▼

160

FIG. 15

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166 — **Mercury Control Equipment**

Unit 1	ACTIVATED CARBON	▼
Unit 2	NO HG CONTROL	▼
Unit 3	NO HG CONTROL	▼
Unit 4	NO HG CONTROL	▼
Unit 5	NO HG CONTROL	▼
Unit 6	NO HG CONTROL	▼
Unit 7	NO HG CONTROL	▼
Unit 8	NO HG CONTROL	▼

168 — **NOx Control Equipment**

Unit 1	SCR	▼
Unit 2	LOW NOX BURNERS	▼
Unit 3	SNCR	▼
Unit 4	LOW NOX BURNERS	▼
Unit 5	LOW NOX BURNERS	▼
Unit 6	LOW NOX BURNERS	▼
Unit 7	LOW NOX BURNERS	▼
Unit 8	LOW NOX BURNERS	▼

170

Pricing Information:

Coal Pricing

FOB Mine	\$15.00
Transportation	\$15.00
	\$30.00

160

FIG. 16

202

STEAM CONDITIONS:

Without QF Steam

Superheater Flow: 2,568,331
Reheater Flow: 2,254,665

	Superheat	Reheat
Inlet Conditions:		
Steam Pressure - psia	2,470	639
Steam Quality	0	
Water/Steam Temp. - F	490	660
Enthalpy	476	1,325
Outlet Conditions:		
Steam Pressure - psia	2,415	589
Steam Temp. - Deg. F	1,000	1,000
Enthalpy	1,460	1,518
Heat Input	984	192

204

With Equiv. QF Steam

2,568,331 lb/hr
2,254,665 lb/hr

QF HEAT LOSS		No Loss
Pounds Per Hour		0
Pressure - psia	464,696	
Temperature	460	
Degrees of SH	50	
QF Steam Enthalpy	1243.18	
FW Enthalpy	476.14	
Heat Loss - Btu's	0	Btu's
Increase in Steam - #/hr	0	#/hr
	0.00%	
Equiv. Output - MW	373	MW

210

Reheat-To Superheat Ratio 0.877871661

208

206

	MCR	Partial Load
.2-.55	0.0000	0.0000
>.55	0.9589	0.9589

190

FIG. 17

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PREDICTED PERFORMANCE: AVERAGE LOAD		100 %	(MCR)	95.00%	
FUEL	Pulverized Coal				
TURBINE STEAM FLOW CORRECTION FACTOR		0.9589		0.9589	
EVAPORATION	Superheater:	2,568,331		2,439,914	
	Reheater:	2,254,665		2,141,932	
TEMP. AT SUPERHEATER/REHEATER OUTLET		1,000	1,000	1,000	1,000
PRES. AT SUPERHEATER/REHEATER OUTLET		2,400	574	2,400	574
FEEDWATER TEMP.		490		490	
GAS TEMP. LEAVING AIR HEATER		275		268	
	(uncorr.)				
AMBIENT AIR TEMP.		80		80	
AIR TEMP. LEAVING THE AIR HEATER (APPROX)		552			
EXCESS AIR		20		20	
HEAT LOSS					LHV
	196	4.36%		4.20%	4.20%
DRY GAS		pct			
H2O & H2 IN FUEL		pct		8.02%	
H2O IN AIR		pct		0.10%	
CARBON		pct		0.24%	0.20%
RADIATION		pct		0.33%	0.33%
MFG. MARGIN		pct		1.43%	1.43%
HEAT CREDITS		pct		-0.39%	
BLOWDOWN		pct		0.00%	
TOTAL		pct		13.92%	6.15%
EFFICIENCY	198	85.81%		86.08%	93.85%
GROSS HEAT FIRED	200	3,554.99		3,366.55	
		MM/btu/hr			

FIG. 18

190

FUEL FIRED PER HOUR	lb/hr	418,234	tonnes/hr	396,065	tonnes/hr
AVERAGE LOAD CONDITION DURING AVAILABLE HOURS	TPH	209.12	190	198.03	180
AVAILABLE HOURS	%	100.00		95.00	
FUEL FIRED PER YEAR	t/yr	8,256		8,256	
		1,726,472		1,634,955	
TOTAL COMBUSTION PRODUCTS	lb/hr	3,601,358		3,410,456	
	ACFM	1,109,079			
TOTAL COMBUSTION AIR	lb/hr	3,183,124		3,014,392	
	ACFM	997,176			
TOTAL ASH (100% UP)	t/hr	11.50		10.89	
TOTAL LIMESTONE (100% UP)	t/hr	3.10		2.93	
	t/hr	25,586		24,230	
TOTAL FLYASH/LIMESTONE REMOVAL SYSTEM LOADING	t/hr	14.60		13.83	
				114,152	
FLUE GAS TO STACK	lb/hr	3,601,358		3,410,456	
LUNGSTROM AIR HEATER LEAKAGE	lb/hr	0		0	
SOOTBLOWING STEAM	lb/hr	0		0	
NET EVAPORATION	lb/hr	2,568,331		2,439,914	
POUNDS STM/KW		6.89			
NO. OF UNITS		1			
HEAT RATE CALCULATION (APPROX.)					
Gross Heat Rate (Total Plant):	BTU/KW HR				
Net Heat Rate (Turbine Only):	BTU/KW HR				
Plant Gross Heat Rate:		9,543	HHV	9,513	kJ/kWh
Plant Net Heat Rate:		8,824	LHV	8,796	
		10,098	HHV	10,066	
		9,338	LHV	9,308	

FIG. 19

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**O & M Cost Summary For:
2000**

	Fixed Costs	Variable Costs	Major Maintenance	Fuel
Direct Labor:	\$6,459,453			
Operator's Fees & Services:	\$327,939			
Bonus Payments:	\$0			
Home Office Technical Support:	\$0			
Warranty Support:	\$0			
Planned Maintenance:			\$4,100,334	
Power Marketing & Resource Management:	\$0			
Unplanned Maintenance:			\$410,033	
Planned Spare Parts:				
Boiler:		\$1,731,661		
Turbine:		\$756,330		
APC Equipment:		\$149,151		
Feedwater System:		\$82,661		
BOP:		\$176,591		
		\$2,866,394		

FIG. 22

Unplanned Spare Parts: \$2,886,394

Employee Travel & Relocation: \$86,300

Other Employee Expenses, Fees and Services: \$286,422

Office/Administration expenses: \$361,973

Contract Services: Included

Ash Disposal: \$1,126,990

Start-up Fuel: \$84,716

Consumables: \$379,977

Chemicals: \$458,886

Coal: \$46,510,069

Limestone: \$359,458

Purchased Power: \$212,706

Equipment Rental: \$1,418,553

					Total Generation Costs
Total Operating Budget	1 \$9,622,066	\$7,216,116	\$4,610,068	\$4,610,068	\$69,780,637
	13.65%	10.35%	8.47%	8.47%	
	Fixed Costs	Variable Costs	Maintenance	Maintenance	
	\$0.0033	\$0.0026	\$0.0166	\$0.0166	\$0.0239

FIG. 23

25/64

2001

Operational Information For:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total
Base O&M Labor Costs On	1	0	0	0	0	0	0	0	1
Gross Maximum Capacity	373	0	0	0	0	0	0	0	373
Net Maximum Capacity	352	0	0	0	0	0	0	0	352
	9,867								
Net Capacity Factor	89.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Availability Factor	94.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Gross Generation (Actual)	2,921,796	0	0	0	0	0	0	0	2,921,796
Net Generation (Actual)	2,761,097	0	0	0	0	0	0	0	2,761,097
Period Hours									
Available Hours	8,760	0	0	0	0	0	0	0	
Forced Outage Hours	8,256	0	0	0	0	0	0	0	0
Planned Outage Hours	0	0	0	0	0	0	0	0	
Maintenance Outage Hours	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	
Average Load Condition (Gross) MW	354	0	0	0	0	0	0	0	MW
%	89.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Average Load Condition (Net) MW	334	0	0	0	0	0	0	0	MW
	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Check	0.9589								

QF Steam For:	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	
QF Steam Flow (% of MCR)	0%	0%	0%	0%	0%	0%	0%	0%	
Pounds Per Hour (Average)	0	0	0	0	0	0	0	0	
Pounds Per Year	0	0	0	0	0	0	0	0	
Pressure (psig)	450	450	450	450	450	450	450	450	
Degrees of SH (F)	50	50	50	50	50	50	50	50	
(Input 0 for saturated steam or input actual degrees of SH)									242

Cost Related Information:
Escalation Date

17-Mar-01

244

FIG. 25

Escalation Rate	4.00%
Last Major Turbine Overhaul	01-May-94
Cost of Purchased Electricity	\$0.060
Location Adjustment Index	
CPI Composite	Base
Material	Index
Labor	99.7
	98.7
	147.00
	154.00
Coal Pricing - Tonne Basis	69.55
	84.76
	121.87%
	114.51%
	6.66
	7.55
	113.36%
	114.04%
Ash - Tonne Basis	21.35
	22.68
	106.23%
	115.61%
Exchange Rate (X/US\$)	USB
Cost per Ton of Fuel (Including trans.)	\$15.00
	\$15.00
	\$30.00
	\$33.07
	per ton
	per tonne
	MM Btu's/ton
	\$/MM Btu's - FOB mine
	\$/MM Btu's - Delivered
Disposal Cost per Ton of ASH/Scrubber Sludge	17.00
	\$0.88
	\$1.76
Disposal Cost per Ton of ASH/Scrubber Sludge	\$10.00
Lime/Limestone	2
Cost per Ton Of:	\$0.00
	\$0.00
	\$15.00
Start-up Fuel	Oil = 1; NG = 2
	2
	\$0.80
	Oil Cost Per Gallon (Delivered)
	NG Cost Per Therm
	Transportation:
	\$0.50

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FIG. 26

<div><div><div>Operator Related Information:</div><div>Operator Fee Operator Bonus Home Office Tech Support Warranty Support Number of Shifts Union/non-union Facility Overtime Wage Benefits</div><div>\$0 \$0 \$0 \$0 4 0 10% 40%</div></div><div>248</div><div>250</div></div>									
<div><div>Facility Equipment Information:</div><div>Type of Boiler Equipment (1 or 2) Unit Design / Commercial Operation Date Number of Boilers Flyash Control System SO2 Control System: Mercury Control System NOx Control System</div><div>1 PULVERIZED COAL 2 FLUIDIZED BED 1 ESP 2 BAGHOUSE 3 BAGHOUSE PLUS GORETEX BAGS 1 NO SO2 EQUIPMENT 2 DRY INJECTION 3 SCRUBBER 1 NO HG CONTROL 2 ACTIVATED CARBON</div></div>									
<div><div>UNIT 1</div><div>UNIT 2</div><div>UNIT 3</div><div>UNIT 4</div><div>UNIT 5</div><div>UNIT 6</div><div>UNIT 7</div><div>UNIT 8</div></div>									
<div><div>PC</div><div>PC</div><div>PC</div><div>PC</div><div>PC</div><div>PC</div><div>PC</div><div>PC</div></div>									
<div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>									
<div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>									
<div><div>2</div><div>1</div><div>3</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>									
<div><div>3</div><div>1</div><div>2</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>									
<div><div>2</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div><div>1</div></div>									

FIG. 27

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1 LOW NOX BURNERS									
2 SNCR									
3 SCR									
Cooling Tower: (Yes=1; No=0)									
Cycle:									
1 ACTUAL CYCLE VALUES									
2 STANDARD 1800 PSIG (NON-REHEAT)									
3 STANDARD 2400 PSIG (5% OP)									
Superheater:									
(-4,080,000 @ 600 MW) (Input Actual Flow Value if Available)									
Flow without QF heat loss									
Equiv. QF Steam Increase									
Total Steam Flow									
Outlet Pressure									
Outlet Temperature									
Reheater:									
~3,770,000 @ 600 MW									
Flow without QF heat loss									
Equiv. QF Steam Increase									
Total Steam Flow									
Inlet Pressure (psig)									
Inlet Temperature (F)									
Outlet Pressure (psig)									
Outlet Temperature (F)									
Feedwater Temperature									
Stack Temperature 1 ACTUAL									
Ambient Temperature 2 STANDARD									
Spares Cost									
Fuel Loss during Handling:									
SO2 Removal									

FIG. 28

Fuels Information:

ACTUAL ANALYSIS	1
STANDARD BITUMINOUS	2
STANDARD SUBBITUMINOUS	3
STANDARD LIGNITE (TEXAS)	4
STANDARD NATURAL GAS	5

Selected Fuels Input:

Fuel Analysis:

Ultimate Analysis

Moisture	29.80%
Ash	5.50%
Carbon	48.30%
Hydrogen	3.40%
Nitrogen	0.70%
Chlorine	0.01%
Sulfur	0.85%
Oxygen	11.80%
	100.36%

Sub-

Bituminous

	29.80%
	5.50%
	48.30%
	3.40%
	0.70%
	0.01%
	0.85%
	11.80%
	100.36%

Proximate:

Excess Air:	20.00%
HHV:	8,500 Btu/lb
LHV:	18.28 GJ/tonne

Fixed Carbon (differential)

Volatiles Matter	33.71%
Sulfur	30.44%
Moisture	0.85%
Ash	29.55%
	5.45%
	100.00%

Natural Gas (Gas analysis is entered on fuels page)

Oxygen	O2	0.00%
Argon	A	0.00%
Carbon Dioxide	CO2	0.00%
Nitrogen	N2	0.00%
Hydrogen	H2	0.00%
Hydrogen Sulfide	H2S	0.00%
Methane	CH4	0.00%
Ethane	C2H6	0.00%
Propane	C3H8	0.00%
n-Butane	C4H10	0.00%
n-Propane	C5H12	0.00%
n-Hexane	C6H14	0.00%
Total:		0.00%

Excess Air:	10.00%
HHV:	0 Btu/CF(1)
LHV:	0 Btu/CF(1)

Note 1: (68F, 30"WG)

FIG. 29

258

Furnace Volume Design Parameters			
Carbon Loss	Volume - Cu. Ft.:	20,000	
	Surface - Sq. Ft. (EPRS - Up Nose):	200,000	
	NHI/PA:	1,850,000	
			0.25%

FIG. 30

File Name: CoalPerf031601

Project Name: Sample Project

Location: USA

Operator: To Be Determined

Escalation 4.00%
Escalation Factor 1.070

270

Number of Equipment Sets Per Unit

Unit Gross Output

Development Costs

Internal Costs

Third Party Costs

Project Counsel

Development Contingency

Land Options

Pre NTP EPC Cost

Total Development Costs

Development Fee

Mine Acquisition Costs

Site Purchase

Development Fee/Mine Acquisitions/Site

Plant

Boilers

Headers

Heating Surface

Waterfall

Steel

Firing Equipment

Misc. Equipment

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total Facility
	1	0	0	0	0	0	0	0	1
	373	0	0	0	0	0	0	0	373
19-Mar-01									
\$11,833	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,832.68
\$12,326	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,325.70
\$1,578	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,577.69
\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$986	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$986.06
\$1,972	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,972.11
\$28,694	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28,694.24
\$9,057	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,057.13
\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$12,076	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,076.17
\$21,133	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21,133.30
\$4,307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$21,936	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$12,904	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$16,533	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$10,275	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$20,646	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$86,601	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$86,600.65

FIG. 31

32/64

Turbine Generators	\$38,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,324.29
BAGHOUSE	\$7,459	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,459.07
SCRUBBER	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.60
ACTIVATED CARBON	\$419.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$419.07
SCR	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.60
Circulating Water System	\$1,275.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,275.65
Electrical System & Equipment	\$23,330.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23,330.45
Fuel Storage & Handling	\$17,662.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17,662.70
Infrastructure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water Treatment	\$3,132.42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,132.42
Other	\$39,755.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39,755.15
Misc. Insurance	\$515.62	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$515.62
Fixtures												
Boilers - not plant related	\$446.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$446.53
Chimneys	\$3,500.06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,500.06
Cooling Towers	\$20,257.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20,257.85
Coal Bunkers	\$1,002.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,002.37
Land & Buildings												
Buildings	\$34,773.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34,773.70
Other												
EPC Target												
Total EPC Costs	\$49,085.86	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49,085.86
	\$402,046.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$402,046.65
Transmission Fees During Construction	\$4,021.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,021.87
Waste Water Pipeline	\$11,189.05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,189.05
Management Services During Construction												
General & Administrative	\$15,382.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,382.48
Professional Services	\$2,760.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,760.96
Engineering Consultants	\$1,972.11	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,972.11
Utilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Owner's Mobilization G&A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Owner's Costs	\$2,218.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,218.63
Management Services Fee	\$1,725.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,725.60
Total Owner's Costs	\$24,059.78	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,059.78

FIG. 32

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O&M Mobilization	Labor	\$6,606.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,606.58
	Fee	\$1,015.64	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,015.64
	G&A	\$374.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$374.70
	Plant Consumables	\$1,356.81	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,356.81
	Equipment	\$5,423.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,423.31
	Owners G&A	\$9,663.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,663.35
		\$24,440.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,440.39
Infrastructure Costs	Roads	\$8,263.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,263.15
	Community Infrastructure	\$1,054.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,054.09
	Mine Industrial Area	\$5,180.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,180.74
	Construction Camp	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Water Management	\$1,176.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,176.37
	Total Infrastructure Costs	\$15,674.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,674.85
Owner's Contingency	Power Plant EPC Costs	\$40,204.67	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40,204.67
	Transmission Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Electrical Interconnection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Infrastructure Costs	\$1,567.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,567.44
	Total Owner's Contingency	\$41,772.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41,772.10
Financing Fees/Costs	Financial Advisor	\$6,409.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,409.37
	Upfront Fees	\$8,381.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,381.48
		\$14,790.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,790.85
Unit Gross Output	Unit 1	373	0	0	0	0	0	0	0	0	0	373
	Total Cost	\$587,823	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$587,823
	\$/kW Installed	\$1,578	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$197

FIG. 33

File Name: CoalPerf031601

Project Name: Sample Project

Location: USA

Operator: To Be Determined

Date	Mar-01	Mar-02	Mar-03	Mar-04	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09	Mar-10	10 Year Average
Hours Of Operation (@end of operational year)	1	2	3	4	5	6	7	8	9	10	
Operational Year											
Waterwall	\$258	\$1,290	\$258	\$258	\$258	\$258	\$258	\$1,290	\$258	\$258	\$464
Heating Surface	\$439	\$2,193	\$439	\$439	\$439	\$439	\$439	\$2,193	\$439	\$439	\$790
Grates	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pulverizers	\$0	\$1,032	\$0	\$0	\$0	\$516	\$0	\$1,032	\$0	\$258	\$310
Air Pre-Heaters	\$0	\$1,032	\$0	\$0	\$0	\$516	\$0	\$1,032	\$0	\$258	\$310
Fuel Handling	\$0	\$88	\$0	\$0	\$0	\$88	\$0	\$177	\$0	\$88	\$62
Headers	\$0	\$215	\$0	\$0	\$0	\$0	\$0	\$215	\$0	\$0	\$43
Steel	\$0	\$0	\$0	\$0	\$0	\$17	\$0	\$0	\$0	\$0	\$2
Belts/Crushers	\$0	\$0	\$0	\$0	\$0	\$132	\$0	\$0	\$0	\$0	\$13
Casing/Refractory/Ductwork	\$0	\$0	\$0	\$0	\$0	\$177	\$0	\$0	\$0	\$0	\$18
Chemical Cleaning	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550	\$0	\$0	\$55
	\$697	\$5,851	\$697	\$697	\$697	\$2,143	\$697	\$6,489	\$697	\$1,301	\$2,066

FIG. 34

300

FIG. 35

General Project Information:

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Operator's Fees & Service:

Operator Fee	\$0
Legal Services	\$139,805
Construction Services	\$146,709
Testing Services	<u>\$41,424</u>
total Fees & Services	\$327,939

Travel: \$86,300

Misc. Employee Expenses \$286,422

FIG. 36

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File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

		<u>Sample Project</u>	
<u>Consumerables:</u>			
Lubricating Oils:			\$379,977
Hydraulic Oil:			
Solvents/Boiler Wash:			
Cleaning Materials:			
Welding Supplies:			
Nuts/Bolts/Small Mechanical Parts:			
Fuses/Light Bulb/Small Elect.Parts:			
Fittings/Small I&E Parts:			
Gas & Oil:			
Total Oils and Lubricants			\$379,977
<u>Chemicals:</u>			
Boiler Water:	62.27%	\$285,603	
Cooling Water:	36.38%	\$166,889	
Demin.Regen:	1.35%	\$6,194	
Fuel Oil:			
Sanitary:			
NOx:			
Aqueous Ammonia:			
Total Chemicals:			\$458,686
<u>Gases:</u>			
Nitrogen:			\$0
Hydrogen:			\$0
Oxygen/Acetylene:			\$0
NOx, CO, SO2, O2 Span Gas:			\$0
Total Gases:			\$0

FIG. 37

38/64

Office Supplies & Services:

Postage, Overnight Mail, etc:	\$17,104
Freight:	\$0
Telephone:	\$41,038
Utilities:	\$9,263
Dues, Subscriptions:	\$70,914
Advertising:	\$0
Camera/Film/Photo Supplies:	\$0
Copier/Paper/Services:	\$0
Offices Supplies:	\$40,194
General Supplies:	\$0
Audio Visual Equipment	\$0
Portable Radios/Services:	\$0
Drinking Water:	\$0
Safety Supplies:	\$0
Safety/Environmental Insp:	\$0
Instrument Service/Repair:	\$0
Vehicles/Service/Repair:	\$165,284
Insurance Autos/Trucks:	\$0
Lift Trucks/Service:	\$0
Small Tools:	\$0
Software for Computers:	\$271
Computer Hardware:	\$0
Building Maintenance:	\$4,594
Janitorial Supplies:	\$0
Misc. Expenses:	\$13,310
Uniforms:	\$0

Total Supplies and Services: \$361,973

Office Furniture/Rent:

Office Rent:	\$0
Desk/Chairs/etc:	\$0
Lab/Shop/Cntrl. Rm. Equip:	\$0
Computer Lease:	\$0

Total Office Furniture: \$0

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File Name: CoalPerf031601
Project Name: Sample Project
Location: USA
Operator: To Be Determined

Rentals/Lease:

Tools:	\$15,304
Equipment:	\$261,694
Office:	\$57,431
Office Equipment:	\$1,066,871
Railcar:	\$17,253
Lease Auto/Trucks:	
Total Rentals:	\$1,418,553

Planned Spare Parts:

Boiler:	\$1,731,661
Turbine:	\$766,330
APC Equipment:	\$149,151
Feedwater System:	\$62,661
BOP:	\$176,591
Total Spare Parts:	\$2,886,394

FIG. 39

40/64

File Name: CoalPerf031601

Project Name: Sample Project

Location: USA

Operator: To Be Determined

Proximate Analysis:

FC	33.71%
VM	30.44%
S	0.85%
M	29.55%
A	5.45%
Total	100.00%

HHV (Btu/#) 8,500

Information used in conjunction with the coal classification figure:

BTU:	8504.98
Dry:	33.70%

Project Coal Classification:

Coal Type:	3
(Calculated)	Sub-
	Bituminous
	OK

Hardgrove Grind. Index:

FIG. 40

0953322 020901
"06020" 020901

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Ash Mineral Analysis:

Silica - SiO ₂	31.00
Alumina - Al ₂ O ₃	14.00
Titania - TiO ₂	1.10
Ferric Oxide - Fe ₂ O ₃	6.50
Lime - CaO	24.60
Magnesia - MgO	6.00
Potassium Oxide - K ₂ O	0.25
Sodium Oxide - Na ₂ O	1.30
Sulfur Trioxide - SO ₃	12.20
Phosphorous Pentoxide - P ₂ O ₅	0.70
Undetermined	2.35
Total	100.00

Ash Fusion Temperature (Deg. F)	
Initial Deformation-Reducing (Input Data)	2189
Initial Deformation-Oxidizing (Input Data)	2239

PARR Formula Relationships:

BASE/ACID RATIO:
(A range of .4-.7 0.7641
coals and results in low ash-fusibility temps)

IRON/CALCIUM RATIO:
(3-0.3 INDICATIVE 0.26
lowers the fusibility temp. of the ash)

IRON/DOLOMITE RATIO:
(Blt. type ash u: 0.21)

SILICA/ALUMINA RATIO:
(above 2.8 & b 2.21)

FIG. 41

FIG. 41 "PARR" 100001

Project Natural Gas Analysis:

Natural Gas Analysis:		Molecular Weight		Lb/100 Moles		Lb Constituent Per Lb Fuel		Lb Air Required for Combustion Per Lb Fuel		Lb Dry Air Per Lb Fuel		BTU's Per Per Constit		BTU's Per Lb Fuel		#Cu Ft (2)		Density #Cu Ft (2)	
		Percent by vol				Per Lb Fuel		Per Lb Fuel		Per Lb Fuel		Per Constit		Per Lb Fuel		#Cu Ft (2)		#Cu Ft (2)	
Oxygen	X	0.00%	O2	32.00	0.00	#DIV/01				#DIV/01		0		#DIV/01		0.0846		0.0846	
Argon	X	0.00%	A	0.00	0.00	#DIV/01		0		#DIV/01		0		#DIV/01		0.117		0.117	
Carbon Dioxide	X	0.00%	CO2	44.00	0.00	#DIV/01		0		#DIV/01		0		#DIV/01		0.0744		0.0744	
Nitrogen	X	0.00%	N2	28.08	0.00	#DIV/01		0		#DIV/01		0		#DIV/01		0.0053		0.0053	
Hydrogen	X	0.00%	H2	2.02	0.00	#DIV/01		34.34		#DIV/01		61,095		#DIV/01		0.0911		0.0911	
Hydrogen Sulfide	X	0.00%	H2S	34.08	0.00	#DIV/01		6.1		#DIV/01		7,097		#DIV/01		0.0425		0.0425	
Methane	X	0.00%	CH4	16.03	0.00	#DIV/01		17.27		#DIV/01		23,875		#DIV/01		0.0803		0.0803	
Ethane	X	0.00%	C2H6	30.05	0.00	#DIV/01		16.12		#DIV/01		22,323		#DIV/01		0.1196		0.1196	
Propane	X	0.00%	C3H8	44.06	0.00	#DIV/01		15.7		#DIV/01		21,669		#DIV/01		0.1582		0.1582	
Butane	X	0.00%	C4H10	58.10	0.00	#DIV/01		15.49		#DIV/01		21,321		#DIV/01		0.1904		0.1904	
Pentane	X	0.00%	C5H12	72.10	0.00	#DIV/01		15.35		#DIV/01		21,095		#DIV/01		0.2274		0.2274	
Hexane	X	0.00%	C6H14	86.12	0.00	#DIV/01				#DIV/01		20,966		#DIV/01					
Total:	X	0.00%			0.00	#DIV/01				#DIV/01				#DIV/01					

Molecular Weight of Fuel: 0

Flue Gas Weight:

#gas/Cu. Ft. (gas)	0
GHI to GT (MMBTU)	372.8
GHI to Duct Burners	32.26
Total GHI:	405.06
HHV of Fuel (BTU/Cu. Ft.)	0
Cu. Ft. of Gas Fired / Hr	#DIV/01
Lbs. of Gas Fired / Hr	#DIV/01
Lbs. of Air / Hr	#DIV/01
Total Gas Flow @ 0% EA	#DIV/01
	59708
	7144
	426.553952

FIG. 42

Natural Gas Heating Value Conversion Analysis:
17-Mar-01

Natural Gas Analysis:		Percent by vol	Btu/CF (1)	HHV Comp. Btu (68F, 14.70 psia)	HHV Comp. Btu (60F, 14.70 psia)
Oxygen	O ₂	0.00%	0	0.00	0.00
Argon	A	0.00%	0	0.00	0.00
Carbon Dioxide	CO ₂	0.00%	0	0.00	0.00
Nitrogen	N ₂	0.00%	0	0.00	0.00
Hydrogen	H ₂	0.00%	319.4	0.00	0.00
Hydrogen Sulfide	H ₂ S	0.00%	547	0.00	0.00
Methane	CH ₄	0.00%	994.7	0.00	0.00
Ethane	C ₂ H ₆	0.00%	1742.6	0.00	0.00
Propane	C ₃ H ₈	0.00%	2480.1	0.00	0.00
Butane	C ₄ H ₁₀	0.00%	3215.6	0.00	0.00
Pentane	C ₅ H ₁₂	0.00%	3950.2	0.00	0.00
Hexane	C ₆ H ₁₄	0.00%	4661.236	0.00	0
Total		0.00%	HHV =	0.00	0.00

Natural Gas Analysis:		Percent by vol	Btu/CF (1)	LHV Comp. Btu (68F, 30"WG)	LHV Comp. Btu (60F, 30"WG)
Oxygen	O ₂	0.00%	0	0.00	0.00
Argon	A	0.00%	0	0.00	0.00
Carbon Dioxide	CO ₂	0.00%	0	0.00	0.00
Nitrogen	N ₂	0.00%	0	0.00	0.00
Hydrogen	H ₂	0.00%	270	0.00	0.00
Hydrogen Sulfide	H ₂ S	0.00%	595	0.00	0.00
Methane	CH ₄	0.00%	896	0.00	0.00
Ethane	C ₂ H ₆	0.00%	194.5	0.00	0.00
Propane	C ₃ H ₈	0.00%	2282.6	0.00	0.00
Butane	C ₄ H ₁₀	0.00%	2968.7	0.00	0.00
Pentane	C ₅ H ₁₂	0.00%	3654	0.00	0.00
Hexane	C ₆ H ₁₄	0.00%	4311.72	0.00	0
Total		0.00%	LHV =	0.00	0.00

HHV/LHV Ratio #DIV/0!

Notes:

(1) Source Mark's Standard Handbook for Mechanical Engineers
Ninth Edition Page 4-29

FIG. 43

O & M Labor, Purchased Power And Fuel Calculations

GENERAL PROJECT INFORMATION:

File Name: CoalPerf031601

Project Name: Sample Project

Location: USA

Operator: To Be Determined

ANNUAL INFLATION RATE (to present day) 4.0%
BASE DATE 22-Aug-93
ESCALATION DATE 17-Mar-01
7.57
Part Year Esc. Factor 1.00

BASE INDEX

Being Updated Zip Code to be used to identify location

	MODEL	PROJECT	PROJECT ADJUSTMENT
COMPOST ADJUSTMENT	99.7	0	#DIV/0!
MATERIAL	99.7	147	147.44%
LABOR		154	156.03%

Number of Units 1
Total Installed MW 373
Average Unit Size 373
Multiple Unit Labor Multiplier 1.00

CAPACITY (MW):

SYSTEM: POWER BLOCK

NUMBER OF SHIFTS

Exchange Rate 1

4 Operations and Maintenance
1 Administration

LABOR SUMMARY (ADJUSTED FOR LOCATION)

FIG. 46

ADMINISTRATIVE:	NUMBER PER SHIFT	NUMBER OF SHIFT(S)	NUMBER OF EMPLOYEES PER POSITION	HOURLY WAGE	OVERTIME (YES=1/NO=0)	OVERTIME	ANNUAL WAGE Per Employee	ANNUAL Wage with O.T. per Employee	FRINGES	FRINGES Employee	ANNUAL Fringes per Employee	ANNUAL LABOR COST
PLANT MANAGER	1	1	1	N/A	0	10.0%	\$100,944	\$100,944	40%	\$141,321	\$141,321	141,321
OPERATIONS MANAGER	1	1	1	N/A	0	10.0%	\$87,485	\$87,485	40%	\$122,478	\$122,478	122,478
MAINTENANCE MANAGER	1	1	1	N/A	0	10.0%	\$80,755	\$80,755	40%	\$113,057	\$113,057	113,057
PLANT/RESULTS MANAGER	1	1	1	N/A	0	40.0%	\$74,025	\$74,025	40%	\$103,638	\$103,638	103,638
OFFICE MANAGER	1	1	1	\$20.19	1	10.0%	\$41,993	\$46,192	40%	\$84,669	\$84,669	64,669
ACCOUNTANT	2	1	2	\$18.34	1	10.0%	\$39,193	\$43,112	40%	\$60,357	\$60,357	120,715
ACCOUNT CLERK	2	1	2	\$14.81	1	10.0%	\$30,795	\$33,874	40%	\$47,424	\$47,424	94,847
SECRETARY	3	1	3	\$13.46	1	10.0%	\$27,995	\$30,795	40%	\$43,112	\$43,112	129,337
PLANT/RESULTS ENGINEER	1	2	2	N/A	0	10.0%	\$53,837	\$53,837	40%	\$75,371	\$75,371	150,743
STOCK CLERK	2	4	9	\$14.81	1	10.0%	\$30,795	\$33,874	40%	\$47,424	\$47,424	\$379,389
SUB-TOTAL			22									\$1,420,192

Total Admin. Labor

\$1,420,192

OPERATIONS:	NUMBER PER SHIFT	NUMBER OF SHIFT(S)	NUMBER OF EMPLOYEES PER POSITION	HOURLY WAGE	OVERTIME (YES=1/NO=0)	OVERTIME	ANNUAL WAGE Per Employee	ANNUAL Wage with O.T. per Employee	FRINGES	FRINGES Employee	ANNUAL Fringes per Employee	ANNUAL LABOR COST
SHIFT SUPERVISOR	1	4	4	N/A	1	10%	\$74,025	\$81,428	40%	\$113,989	\$113,989	455,997
CONTROL ROOM OPERATOR	1	4	4	N/A	1	10%	\$67,286	\$74,025	40%	\$103,636	\$103,636	414,542
CHEMIST	1	4	4	N/A	1	10%	\$60,566	\$66,623	40%	\$93,272	\$93,272	373,088
APC EQUIP. OPERATOR	2	4	8	N/A	1	10%	\$67,286	\$74,025	40%	\$103,636	\$103,636	\$629,085
ROVER	1	4	4	\$21.50	1	10%	\$44,792	\$49,271	40%	\$68,980	\$68,980	\$275,919
SWEEPER/OPERATOR	1	4	4	\$17.50	1	10%	\$36,394	\$40,033	40%	\$56,046	\$56,046	\$224,185
FRONT-END LOADER	1	4	4	\$17.50	1	10%	\$36,394	\$40,033	40%	\$56,046	\$56,046	\$224,185
MAINTENANCE:			32									
MECHANICS	1	4	4	\$32.30	1	10%	\$67,188	\$73,907	40%	\$103,407	\$103,407	\$413,879
MECHANICS HELPERS	1	4	4	\$24.23	1	10%	\$50,391	\$55,430	40%	\$77,602	\$77,602	\$310,409
TRUCK DRIVERS	1	4	4	\$18.84	1	10%	\$39,193	\$43,112	40%	\$60,357	\$60,357	\$241,429
ASH/APC SLUDGE MOVER	2	4	8	\$18.84	1	10%	\$39,193	\$43,112	40%	\$60,357	\$60,357	\$492,859
APC MECHANICS	2	4	8	\$32.30	1	10%	\$67,188	\$73,907	40%	\$103,470	\$103,470	\$827,756
ELECTRICIANS	1	4	4	\$32.30	1	10%	\$67,188	\$73,907	40%	\$103,470	\$103,470	\$413,879
ELECTRICIANS HELPERS	1	4	4	\$24.23	1	10%	\$50,391	\$55,430	40%	\$77,602	\$77,602	\$310,409
INSTRUMENT TECH'S	1	4	4	\$32.30	1	10%	\$67,188	\$73,907	40%	\$103,470	\$103,470	\$413,879
APC I & C	2	4	8	\$32.30	1	10%	\$67,188	\$73,907	40%	\$103,470	\$103,470	\$827,756
SUB-TOTAL			80									\$7,039,261

Total Admin. Labor

\$7,039,261

SUB-TOTAL	80											\$0
												\$87,990.76
												\$62,850.54
												Corrected
												\$8,459,453
												102
												\$82,936

Adjusted for local labor requirements yes=1, no=0

TOTAL DIRECT LABOR:
TOTAL PLANT STAFF:
AVERAGE COST PER EMPLOYEE:

FIG. 47

III. REPLACEMENT RESERVE

V. MISC. EXPENSES

WATER & SEWER

Not including Building Data Base

	GPY	CCF	COST
WATER :	#REF1	#REF1	#REF1
SEWER :	#REF1	#REF1	#REF1
			(1993\$)
TOTAL WATER & SEWER			(1996\$)

INSURANCE

POLICIES

1. ALL RISK POLICY (\$90 MILLION)			\$205,035
BUSINESS INTERRUPTION (\$15 MILLION)			\$80,406
3. THIRD PARTY LIABILITY			\$250,000
4. POLLUTION LIABILITY (\$1 MILLION)			\$50,000
TOTAL INSURANCE			\$0
			(1993\$)

PURCHASED POWER

HOUSE LOAD	
HOUSE LOAD-KW	
HOURS PER YEAR OFF LINE	
% OF HOUSE LOAD PURCHASED	
POWER COST	
ELECTRIC COST	
DEMAND CHARGE	

TOTAL ELECTRICITY COST

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
	5.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	20,489	0	0	0	0	0	0	0
	916.8	0	0	0	0	0	0	0
	10%	0%	0%	0%	0%	0%	0%	0%
	0.06	0	0	0	0	0	0	0
	\$112,706	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$212,706	\$0	\$0	\$0	\$0	\$0	\$0	\$0

FIG. 48

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START-UP FUEL	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
APPROXIMATE DAYS OFF LINE	21	0	0	0	0	0	0	0
NUMBER OF STARTS PER YEAR (AVG. 3 DAY Outage)	7	0	0	0	0	0	0	0
GROSS HEAT INPUT OF UNIT (MILLION BTU'S PER HOUR)	3555	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
GHI OF START-UP BURNERS-15% of GHI (MILLION BTU'S PER HOUR)	533.25	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
AVERAGE LENGTH OF START-UP (HOURS)	4	4	4	4	4	4	4	4
HEAT INPUT FROM STARTS	14,931	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
TOTAL MILLION BTU'S REQUIRED FOR START-UP	14,931	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
NATURAL GAS REQUIRED @	\$29,862							
OIL REQUIRED @	\$84,715	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
	Gallons	105,893						

REAL ESTATE TAXES
NOT INCLUDED IN ESTIMATE

<u>WHEELING COST</u>	Facility C	Facility D
	\$1,899,240	\$3,311,600
Calculated Value:	1.75198561	2.603019553

FIG. 49

This tab is being used to adjust variations in heat rate at partial loads in the performance section of the model

Flow Rates

Superheater 1,025,000 Reheater 900,000 Gen-KW 156,200

Boiler Feedwater Temperature-F: 460
Number of Feedwater Heaters: 6

Exhaust Pressure	%	Change	TC2F		26		Length				
			EXH Pres	VWO-OP	VWO	100%	75%	50%	25%		
0.5	-3.12%	7746	1.0	7993	8003	8000	8016	8227	9067		
1	-1.22%	7897	1.5	7995	8017	8009	8073	8395	9414		
1.5	0.00%	7995	2.0	8032	8061	8059	8177	8584	9715		
2	0.93%	8069	2.5	8095	8132	8136	8302	8757	9986		
2.5	1.68%	8129	3.0	8181	8225	8230	8427	8917	10194		
3	2.33%	8181	3.5	8275	8328	8330	8543	9062	10395		
3.5	2.89%	8226	4.0	8376	8433		8653	9202	10575		
4	3.36%	8264	4.5	8472	8532		8757	9334			
4.5	3.80%	8299	5.0	8566	8629		8857	9460			
5	4.20%	8331									

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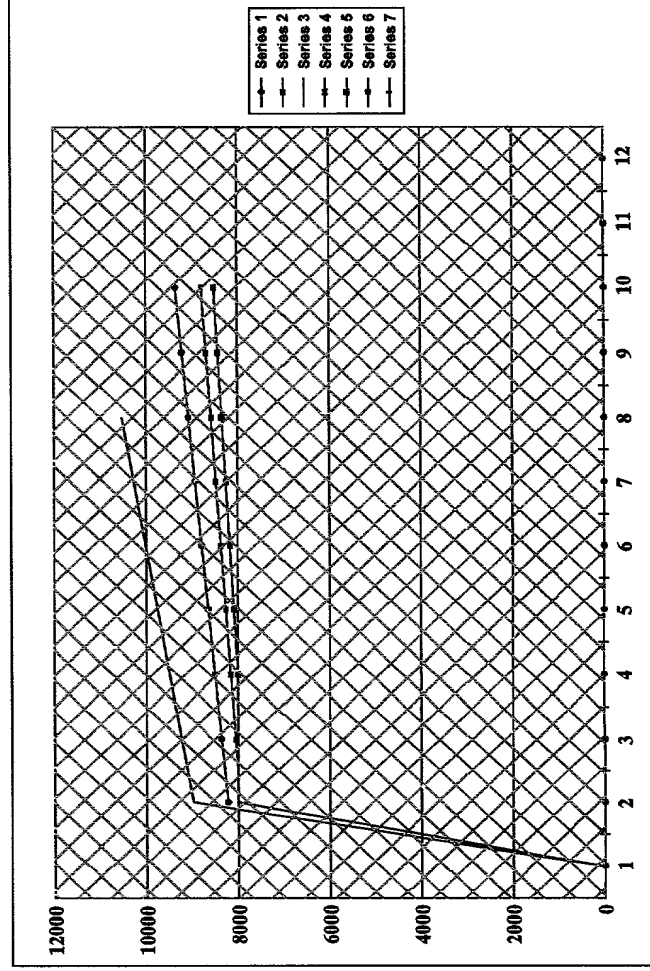


FIG. 50

TC2F

Last Stage Bucket Length

30

EXH Pres	VWO-OP	VWO	100%	75%	50%	25%
1.0	7832	7853	7844	7907	8225	9293
1.5	7884	7915	7918	8068	8531	9790
2.0	7995	8040	8050	8276	8797	10208
2.5	8149	8208	8212	8464	9045	10558
3.0	8312	8376		8636	9272	
3.5	8466	8536		8803	9479	
4.0	8612	8688		8962	9670	
4.5	8757	8841		9112	9844	
5.0	8901	8991		9254	10005	

Flow Rates

Superheater Reheater Gen-KW

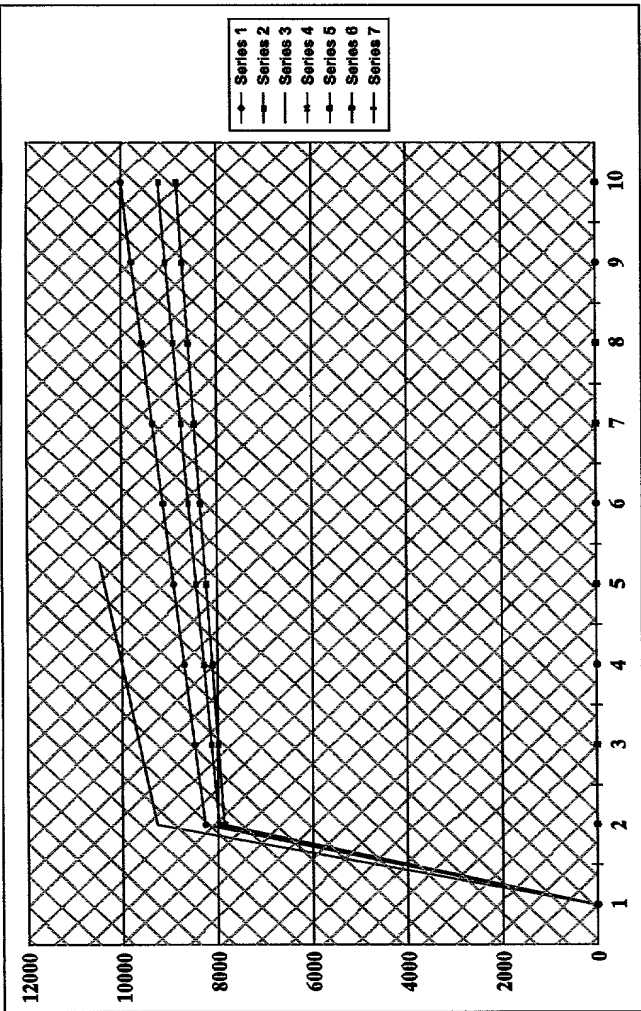
1,025,000 900,000 156,200

Boiler Feedwater Temperature-F:

460

Number of Feedwater Heaters:

6



Heat Rates

Load	20%	25%	30%	33%	35%	39%	44%	50%	56%	61%
Test Heat Rates	13,463	12,476	11,827	11,371	11,036	10,782	10,584	10,427		
calc. uncorrected	9,742	9,773	9,805	9,836	9,868	9,900	9,932	9,964		
Steam correction factor	1.382	1.277	1.206	1.158	1.118	1.089	1.066	1.046		

1.1291239 1.11890487 1.10868585 1.09846682 1.0882478 1.07802877 1.06780975 1.05759072

-8.80% -5.24% -2.77% -1.03% 0.20% 1.05%

Check

200MW Tandem Compound	20%	25%	30%	35%	40%	45%	50%	55%
350MW Tandem Compound		9,650					8,523	
400MW Tandem Compound		10,143					8,712	
600MW Tandem Compound		10,225					8,767	
		9,994					8,500	

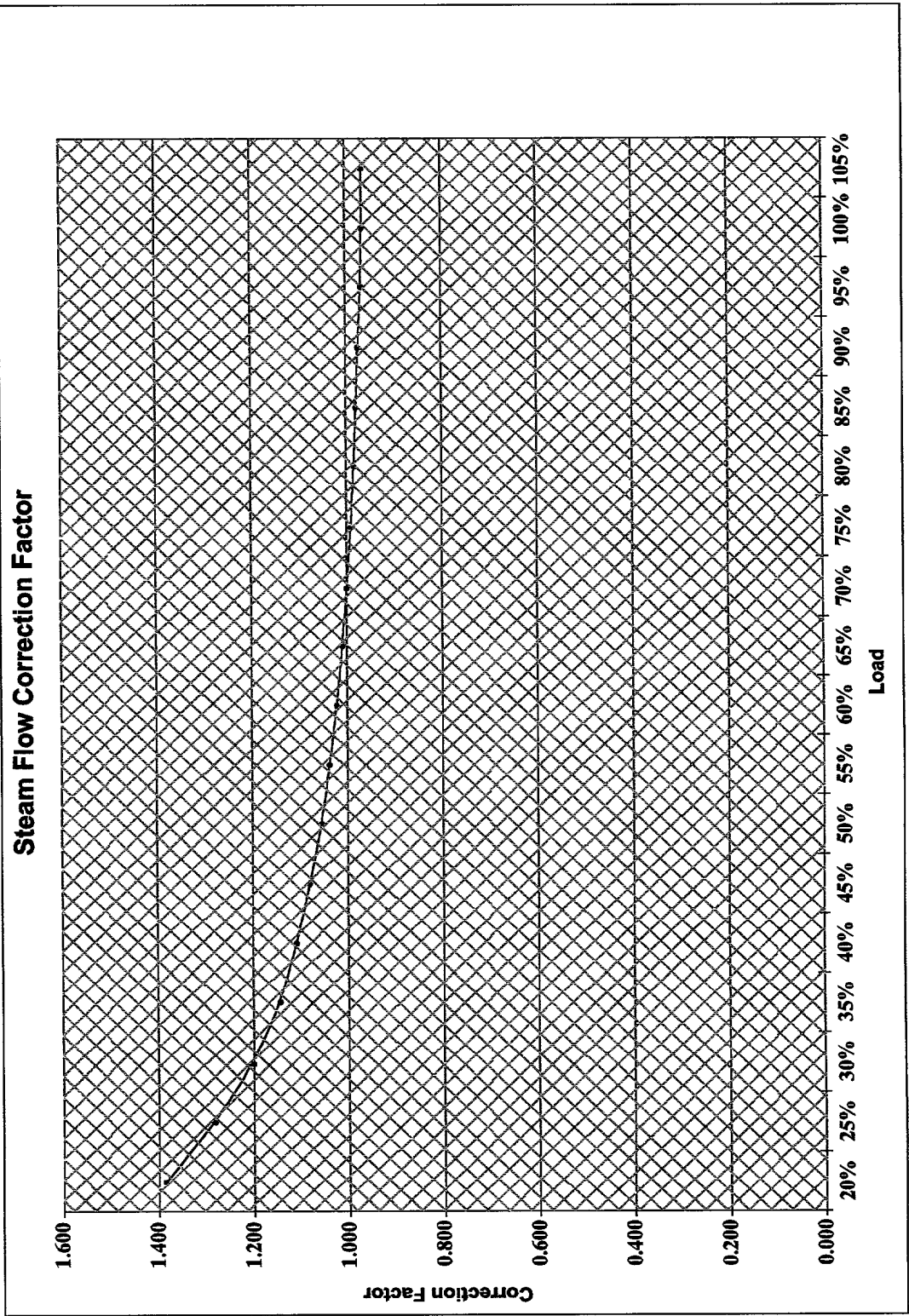
FIG. 51

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	0.67%	0.72%	0.78%	0.83%	0.89%	0.94%	1.00%	1.06%	1.11%	1.17%
60%	65%	70%	75%	80%	85%	90%	95%	100%	105%	105%
10,301	10,198	10,114	10,045	9,988	9,941	9,902	9,870	9,844	9,823	9,823
9,997	10,030	10,063	10,096	10,130	10,163	10,197	10,231	10,266	10,300	10,300
1,030	1,017	1,005	0,995	0,986	0,978	0,971	0,965	0,959	0,954	0,954
1.0473717	1.03715267	1.02693365	1.01671462	1.0064956	0.99627657	0.98605755	0.97583852	0.9656195	0.95540047	0.95540047
1.62%	1.97%	2.13%	2.14%	2.04%	1.82%	1.52%	1.14%	0.70%	0.18%	0.18%
60%	65%	70%	75%	80%	85%	90%	95%	100%	105%	105%
			8,133					8,036	8,010	8,010
			8,189					7,955	7,906	7,906
			8,210					7,964	7,911	7,911
			8,009					7,872	7,848	7,848

FIG. 52

-0.0817522
0.00444444
1.17



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FIG. 53

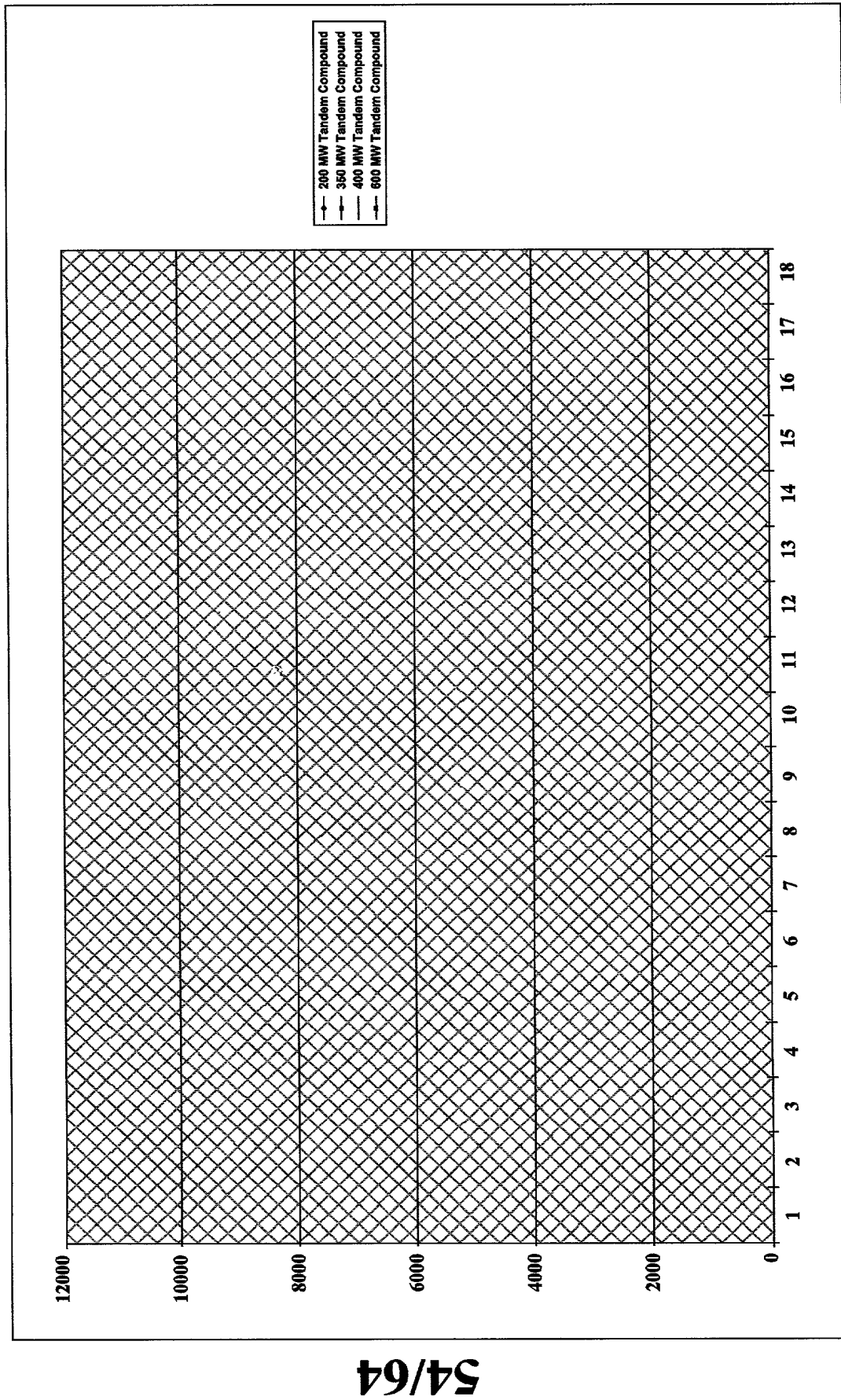


FIG. 54

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

IE Dispatch Information: For Reference Only											
Average Capacity: 373		2001	2002	2003	2004	2005	2006	2007	2008	2009	
Capacity Factor	83.70%	85.00%	71.30%	69.60%	67.50%	68.10%	67.10%	68.00%	67.90%		
Calculated Capacity Factor	89.53%	77.10%	87.78%	88.03%	87.78%	87.78%	87.78%	87.78%	87.78%	87.78%	
Availability	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	
Average Load	93.00%	94.44%	979.22%	77.33%	75.00%	75.67%	74.56%	75.56%	75.44%		
Hours in Years	8,760	8,760	8,784	8,760	8,760	8,760	8,760	8,760	8,760	8,760	
Hours Dispatched	7,884	7,884	7,906	7,884	7,884	7,884	7,884	7,884	7,884	7,884	
Annual Output	2,731,405	2,773,829	2,33,127	2,721,276	2,202,746	2,222,326	2,195,692	2,219,063	2,215,800		
Calculated Annual Output	2,921,796	2,515,870	2,864,503	2,872,651	2,864,503	2,864,503	2,864,503	2,524,019	2,864,503		

Major Outages

1

Hours Available for Dispatched		2001	2002	2003	2004	2005	2006	2007	2008	2009
January	744	744	744	744	744	744	744	744	744	744
February	672	672	672	672	672	672	672	672	672	672
March	240	240	240	240	240	240	240	240	240	240
April	720	720	720	720	720	720	720	720	720	720
May	744	744	744	744	744	744	744	744	744	744
June	720	720	720	720	720	720	720	720	720	720
July	744	744	744	744	744	744	744	744	744	744
August	744	744	744	744	744	744	744	744	744	744
September	720	720	720	720	720	720	720	720	720	720
October	744	744	744	744	744	744	744	744	744	744
November	720	456	720	720	720	720	720	720	720	720
December	744	744	744	744	744	744	744	744	744	744
Total	8258	7248	8258	8280	8256	8256	8256	8256	8258	8256

Hours Dispatched		2001	2002	2003	2004	2005	2006	2007	2008	2009
January	744	744	692	692	692	692	692	692	692	692
February	672	625	625	647	625	625	625	625	647	625
March	240	226	226	226	226	226	226	226	226	226
April	720	677	677	677	677	677	677	677	677	677
May	744	707	707	707	707	707	707	707	707	707
June	720	684	684	684	684	684	684	684	684	684
July	744	714	714	714	714	714	714	714	714	714
August	744	714	714	714	714	714	714	714	714	714
September	720	684	684	684	684	684	684	684	684	684
October	744	0	707	707	707	707	707	707	0	707
November	720	429	677	677	677	677	677	677	429	677
December	744	699	699	699	699	699	699	699	699	699
Total Hours Dispatched	8258	6851	6851	7828	7806	7806	7806	7806	6873	7806
Percentage of Available Hours	100.00%	94.52%	94.54%	94.54%	94.54%	94.54%	94.54%	94.54%	94.51%	94.54%
Percentage of Annual Hours	94.25%	78.20%	89.10%	89.1%	89.10%	89.10%	89.10%	89.10%	78.24%	89.10%
Average Annual Load	95.00%	98.58%	98.51%	98.51%	98.51%	98.51%	98.51%	98.51%	98.58%	98.51%

FIG. 55

11

FIG. 56

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Unit 1 Dispatch Information:							
Hours Available for Dispatch	January-01	February-01	March-01	April-01	May-01	June-01	July-01
	744	672	240	720	744	720	744
Percentage of Hours Dispatched	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average Dispatched Load	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
Fuel Fired tons/hr	195.86	195.86	195.86	195.86	195.86	195.86	195.86
tons	145,718	131,616	47,006	141,018	145,718	141,018	145,718
Total Ash (100% up)- tons	8,015	7,239	2,585	7,756	8,015	7,756	8,015
Total Limestone (100% up)- tons	2,160	1,951	697	2,090	2,160	2,090	2,160
Total Flyash/Limestone Load- tons	10,174	9,189	3,282	9,864	10,174	9,846	10,174
Heat Rate Information:							
Gross Generation	263,301,377	237,820,598	84,935,928	254,807,784	263,301,377	254,807,784	263,301,377
Unit 1 Gross Heat Rate- BTU/kWh:	9,408	9,408	9,408	9,408	9,408	9,408	9,408
Net Generation	248,819,801	224,740,465	80,264,452	240,793,356	248,819,801	240,793,356	248,819,801
Plant Net Heat Rate- BTU/kWh:	9,956	9,956	9,956	9,956	9,956	9,956	9,956

Unit 1 Dispatch Information:							
Hours Available for Dispatch	January-02	February-02	March-02	April-02	May-02	June-02	July-02
	744	672	240	720	744	720	744
Percentage of Hours Dispatched	93.00%	93.00%	94.00%	94.00%	95.00%	95.00%	96.00%
Average Dispatched Load	98.00%	98.00%	97.00%	98.00%	98.00%	99.00%	100.00%
Fuel Fired tons/hr	202.48	202.48	200.27	202.48	202.48	204.89	206.90
tons	140,097	126,539	45,180	137,035	143,110	140,006	147,777
Total Ash (100% up)- tons	7,705	6,960	2,485	7,537	7,871	7,700	8,128
Total Limestone (100% up)- tons	2,232	2,016	712	2,160	2,232	2,184	2,281
Total Flyash/Limestone Load- tons	9,938	8,976	3,197	9,697	10,104	9,884	10,409
Heat Rate Information:							
Gross Generation	252,603,026	228,157,572	81,520,610	247,083,085	258,035,349	252,259,706	266,072,970
Unit 1 Gross Heat Rate- BTU/kWh:	9,428	9,428	9,422	9,428	9,428	9,435	9,442
Net Generation	238,709,860	215,608,906	77,036,976	233,493,515	243,843,405	238,385,422	251,438,957
Plant Net Heat Rate- BTU/kWh:	9,977	9,977	9,970	9,977	9,977	9,984	9,991

FIG. 57

Unit 1 Gross Capacity: 373

August-01	September-01	October-01	November-01	December-01	2001	
744	720	744	720	744	Gross Capacity Factor:	89.53%
100.00%	100.00%	100.00%	100.00%	100.00%	Fuel Fired	tons/hr
95.00%	95.00%	95.00%	95.00%	95.00%	Total Ash (100% up)- tons	2,350.29
195.86	195.86	195.86	195.86	195.86	Total Limestone- tons	1,617,002
141,018	141,018	145,718	141,018	145,718	Total Flyash/Limestone Load- tons	88,935
7,756	7,756	8,015	7,756	8,015		23,964
2,090	2,090	2,160	2,090	2,160		112,899
9,846	9,846	10,174	9,846	10,174		
254,807,784	254,807,784	263,301,377	254,807,784	263,301,377	Gross Generation	2,921,795,923
9,408	9,408	9,408	9,408	9,408	Unit 1 Gross Heat Rate- BTU/kWh:	9,408
240,793,356	240,793,356	248,819,801	240,793,356	248,819,801	Net Generation	2,761,097,147
9,956	9,956	9,956	9,956	9,956	Plant Net Heat Rate- BTU/kWh:	9,956
August-02	September-02	October-02	November-02	December-02	2002	
744	720	0	456	744	Gross Capacity Factor:	77.10%
96.00%	95.00%	95.00%	94.00%	94.00%	Fuel Fired	tons/hr
100.00%	99.00%	98.00%	98.00%	98.00%	Total Ash (100% up)- tons	2,440.77
206.90	204.89	202.48	202.48	202.48	Total Limestone- tons	1,395,919
147,777	140,006	0	86,789	141,603	Total Flyash/Limestone Load- tons	76,776
8,128	7,700	0	4,773	7,788		21,885
2,281	2,184	0	1,368	2,232		98,661
10,409	9,884	0	6,142	10,021		
266,072,970	252,259,706	0	156,485,954	255,319,188	Gross Generation	2,515,870,136
9,442	9,435	#DIV/0!	9,428	9,428	Unit 1 Gross Heat Rate- BTU/kWh:	9,432
251,438,957	238,385,422	0	147,879,226	241,276,632	Net Generation	2,377,497,279
9,991	9,934	#DIV/0!	9,977	9,977	Plant Net Heat Rate- BTU/kWh:	9,981

FIG. 58

Unit 1 Dispatch Information:		January-03	February-03	March-03	April-03	May-03	June-03	July-03
Hours Available for Dispatch		744	672	240	720	744	720	744
Percentage of Hours Dispatched		93.00%	93.00%	94.00%	94.00%	95.00%	95.00%	96.00%
Average Dispatched Load		98.00%	98.00%	97.00%	98.00%	98.00%	99.00%	100.00%
Fuel Fired tons/hr		202.48	202.48	200.27	202.48	202.48	204.89	206.90
Total Ash (100% up)- tons		140,097	126,539	45,180	137,035	143,110	140,006	147,777
Total Limestone (100% up)- tons		7,705	6,960	2,485	7,537	7,871	7,700	8,128
Total Flyash/Limestone Load- tons		2,232	2,016	712	2,160	2,232	2,184	2,281
Heat Rate Information:		9,938	8,976	3,197	9,697	10,104	9,884	10,409
Gross Generation		252,603,026	228,157,572	81,520,610	247,083,085	258,035,349	252,259,706	266,072,970
Unit 1 Gross Heat Rate- BTU/kWh:		9,428	9,428	9,422	9,428	9,428	9,435	9,442
Net Generation		238,709,860	215,608,906	77,036,976	233,493,515	243,843,405	238,385,422	251,438,957
Plant Net Heat Rate- BTU/kWh:		9,977	9,977	9,970	9,977	9,977	9,984	9,991
Unit 1 Dispatch Information:		January-04	February-04	March-04	April-04	May-04	June-04	July-04
Hours Available for Dispatch		744	696	240	720	744	720	744
Percentage of Hours Dispatched		93.00%	93.00%	94.00%	94.00%	95.00%	95.00%	96.00%
Average Dispatched Load		98.00%	98.00%	97.00%	98.00%	98.00%	99.00%	100.00%
Fuel Fired tons/hr		202.48	202.48	200.27	202.48	202.48	204.89	206.90
Total Ash (100% up)- tons		140,097	131,058	45,180	137,035	143,110	140,006	147,777
Total Limestone (100% up)- tons		7,705	7,208	2,485	7,537	7,871	7,700	8,128
Total Flyash/Limestone Load- tons		2,232	2,088	712	2,160	2,232	2,184	2,281
Heat Rate Information:		9,938	9,297	3,197	9,697	10,104	9,884	10,409
Gross Generation		252,603,026	236,306,057	81,520,610	247,083,085	258,035,349	252,259,706	266,072,970
Unit 1 Gross Heat Rate- BTU/kWh:		9,428	9,428	9,422	9,428	9,428	9,435	9,442
Net Generation		238,709,860	223,309,224	77,036,976	233,493,515	243,843,405	238,385,422	251,438,957
Plant Net Heat Rate- BTU/kWh:		9,977	9,977	9,970	9,977	9,977	9,984	9,991

FIG. 59

Unit 1 Dispatch Information:		January-05	February-05	March-05	April-05	May-05	June-05	July-05
Hours Available for Dispatch		744	672	240	720	744	720	744
Percentage of Hours Dispatched		93.00%	93.00%	94.00%	94.00%	95.00%	95.00%	96.00%
Average Dispatched Load		98.00%	98.00%	97.00%	98.00%	98.00%	99.00%	100.00%
Fuel Fired tons/hr		202.48	202.48	200.27	202.48	202.48	204.89	206.90
Total Ash (100% up)- tons		140,097	126,539	45,180	137,035	143,110	140,006	147,777
Total Limestone (100% up)- tons		7,705	6,960	2,485	7,537	7,871	7,700	8,128
Total Flyash/Limestone Load- tons		2,232	2,016	712	2,160	2,232	2,184	2,281
Heat Rate Information:		9,938	8,976	3,197	9,697	10,104	9,884	10,409
Gross Generation		252,603,026	228,157,572	81,520,610	247,083,085	258,035,349	252,259,706	266,072,970
Unit 1 Gross Heat Rate- BTU/kWh:		9,428	9,428	9,422	9,428	9,428	9,435	9,442
Net Generation		238,709,860	215,608,906	77,036,976	233,493,515	243,843,405	238,385,422	251,438,957
Plant Net Heat Rate- BTU/kWh:		9,977	9,977	9,970	9,977	9,977	9,984	9,991

FIG. 61

62/64

August-05	September-05	October-05	November-05	December-05	2005
744	720	744	720	744	87.78%
96.00%	95.00%	95.00%	94.00%	94.00%	
100.00%	99.00%	98.00%	98.00%	98.00%	
206.90	204.89	202.48	202.48	202.48	
147,777	140,006	143,110	137,035	141,603	
8,128	7,700	7,871	7,537	7,788	
2,281	2,184	2,232	2,160	2,232	
10,409	9,884	10,104	9,697	10,021	
266,072,970	252,259,706	258,035,349	247,083,085	255,319,188	
9,442	9,435	9,428	9,428	9,428	
251,438,957	238,385,422	243,843,405	233,493,515	241,276,632	
9,991	9,934	9,977	9,977	9,977	
					Gross Capacity Factor:
					Fuel Fired
					tons/hr
					tons
					Total Ash (100% up)- tons
					Total Limestone- tons
					Total Flyash/Limestone Load- tons
					Gross Generation
					Unit 1 Gross Heat Rate- BTU/kWh:
					Net Generation
					Plant Net Heat Rate- BTU/kWh:
					2,440.77
					1,589,275
					87,410
					24,910
					112,321
					2,864,502,616
					9,432
					2,706,954,973
					9,981

FIG. 62

63/64

Assumed Tax (per ton of Carbon):	\$40
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		Sub- Bituminous
Facility Net Heat Rate (HHV):	BTU/KWH	9,956
HHV of Coal:	BTU/#	8,500
Percent Carbon in Coal (WT)		48.30%
Unit Capacity:	MW	373
Carbon Loss:		0.25%
Molecular Weight of Carbon		12.01
Molecular Weight of O2		32.00
Price per MMBtu from Coal		1.11
Price per Ton of Coal (delivered)	per Ton	\$30.00
Net KWH Produced:		2,761,097,147
Coal Fired	Tons	1,617,002
Carbon in Flue Gas	Tons	781,012
CO2	Tons	2,861,804
Fuel Cost:	Total	\$48,631,344
	\$/kwh	\$0.0176
	Carbon Tax:	\$31,240,484
	per KWH	\$0.0113
	per MMBtu	\$1.14

Tons CO2/kWh

0.001036473

FIG. 63

106080" E28E860

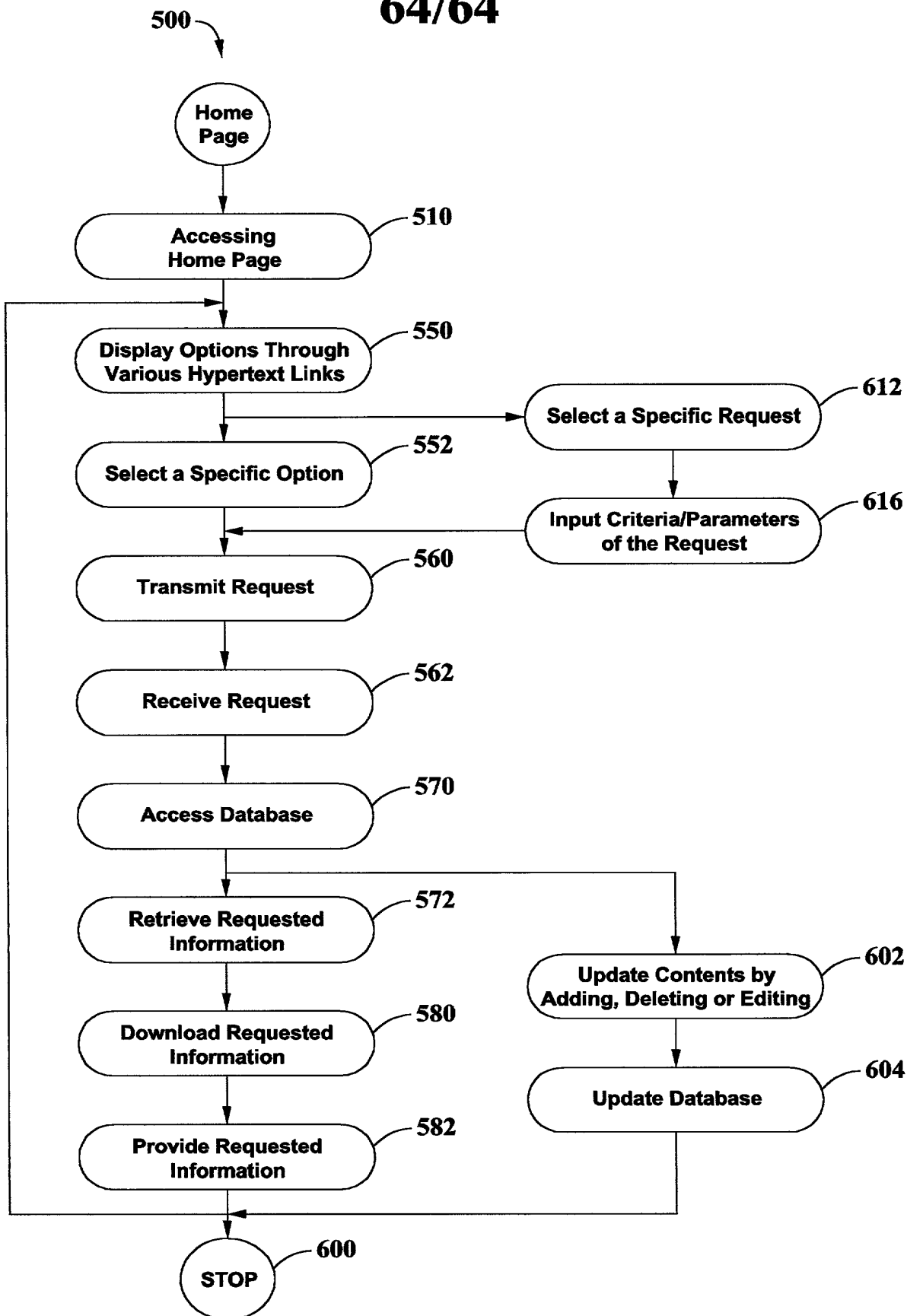


FIG. 64